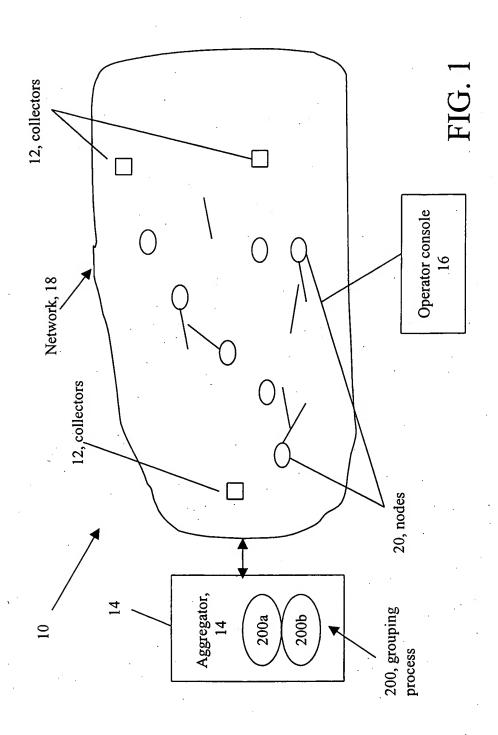
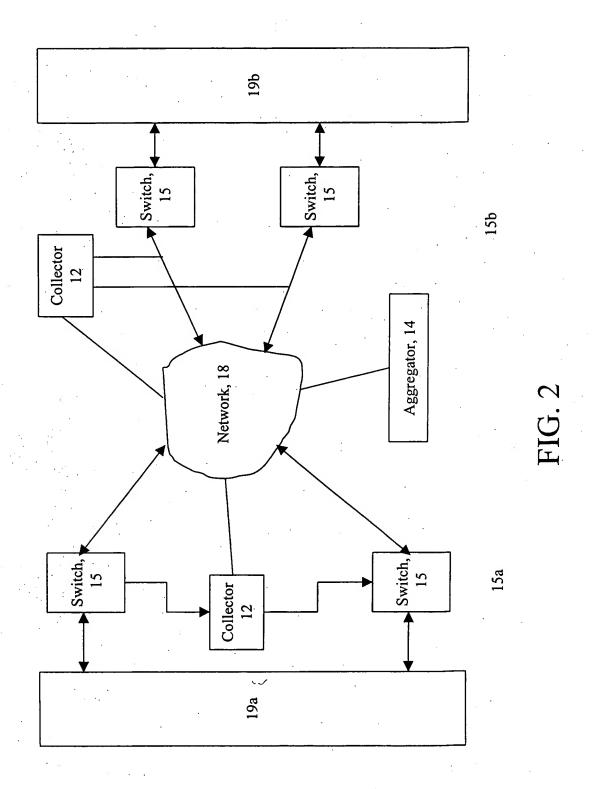
Matter No.: 12221-026001 Page 1 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Matter No.: 12221-026001 Page 2 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



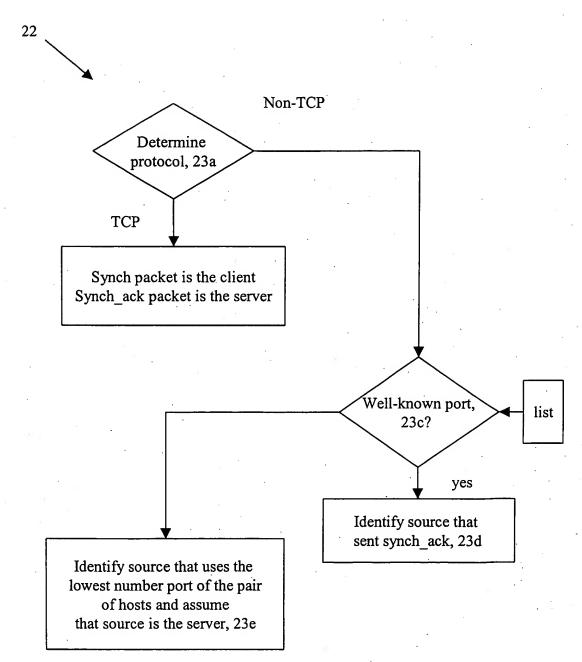
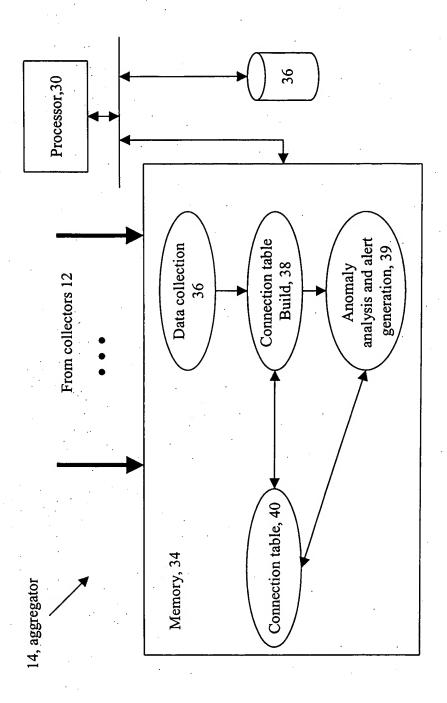
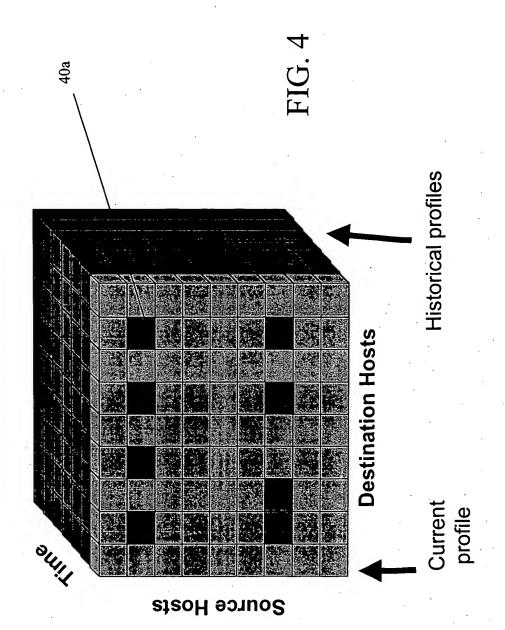


FIG. 2A

Matter No.: 12221-026001 Page 4 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Matter No.: 12221-026001 Page 5 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Aggregate statistics for host pairs, 46 Host pair object, 45 41b Host ID, Host ID Group Information, 47 host identifiers of peers, 44 Aggregate statistics and Host object, 43 41a Host ID

Matter No.: 12221-026001 Page 7 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

Time Slice	Fri	Thu	Wed	•	Sun	Sat	Fri
Services provided by A (Web Server) to B (Desktop)	A (Web	Server) to B (D	esktop)			
WWW (TCP:80)							
Bytes / sec	2k	3k	1k	:	2k	4k	3k
Packets / sec	5	9	7		S	6	S
Conn's. / hr	κi	ĸ.	£.		.2	ω,	હ
SSH (TCP:22)							
Bytes / sec	1k	3k	4k	:	1k	2k	3k
Packets / sec	2	9	6		7	5	9
Conn's. / hr	w.	ĸ.	eć.		u,	u,	ĸi
Services provided by B (Desktop) to A (Web Server)	B (Desk	top) to	A (Web	Server)			
SSH (TCP:22)		,					
Bytes / sec	21k	0	0		0	0	0
Packets / sec	10	0	0	:	0	0	0
Conn's. / hr	1	0	0		0 -	0	0

Long update, e.g., t < 24 hours. Short update, e.g., t < 30mins. Time-slice, t < 2mins. TS, 49a

Matter No.: 12221-026001 Page 8 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

Page 8 of 42

Matter No.: 12221-026001 Page 9 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

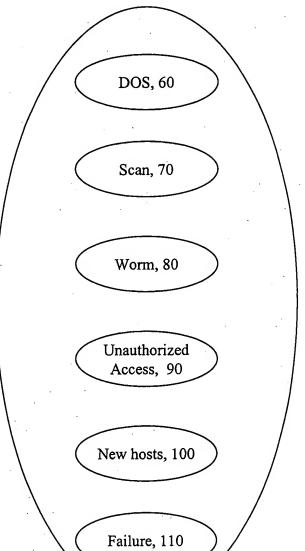
Aggregator cluster member, 14n

Aggregator cluster member, 14a

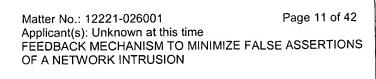
Page 10 of 42

Matter No.: 12221-026001 Page 10 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

FIG. 8



39



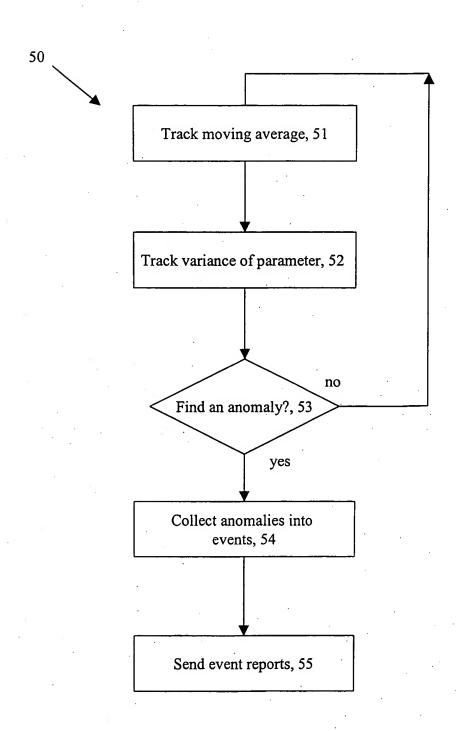


FIG. 9

Matter No.: 12221-026001 Page 12 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

56

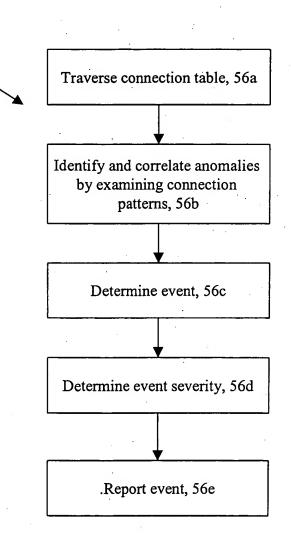


FIG. 10

Matter No.: 12221-026001 Applicant(s): Unknown at this time Page 13 of 42

FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS OF A NETWORK INTRUSION

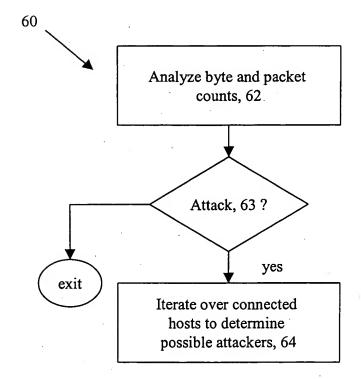
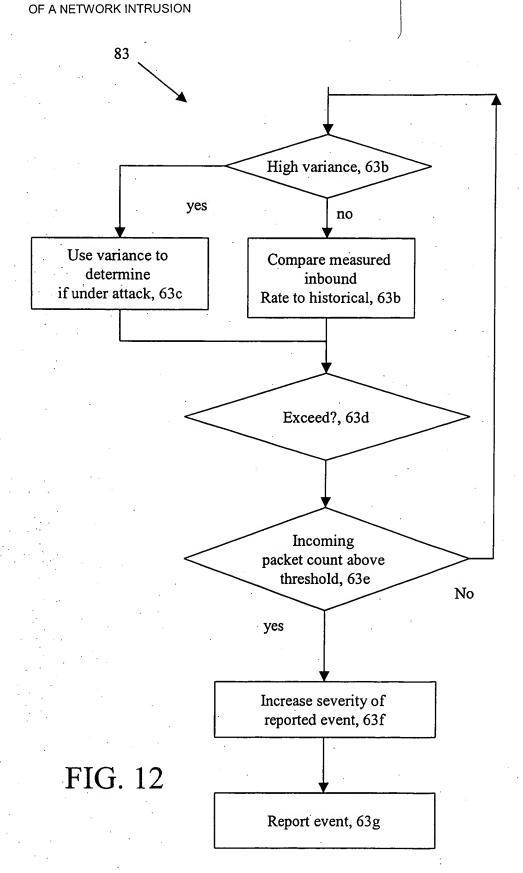
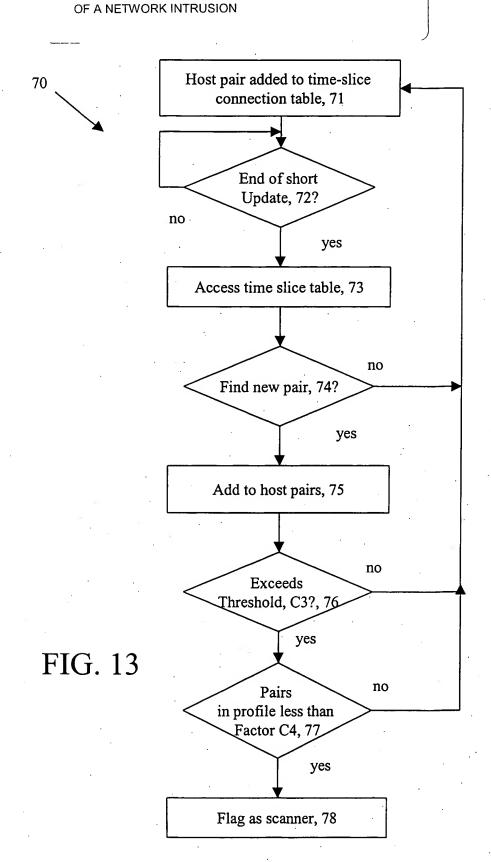


FIG. 11

Matter No.: 12221-026001 Page 14 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS





Matter No.: 12221-026001 Page 16 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

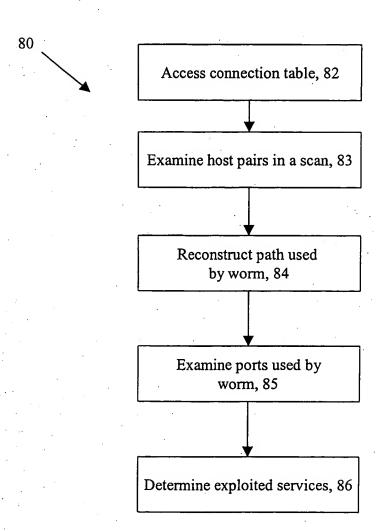
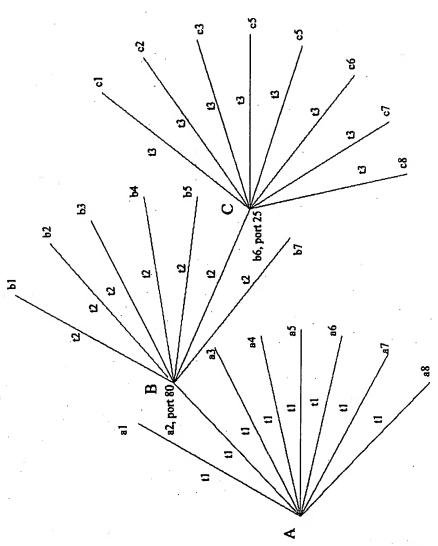


FIG. 14

Page 17 of 42

Matter No.: 12221-026001 Page 17 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Matter No.: 12221-026001 Page 18 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

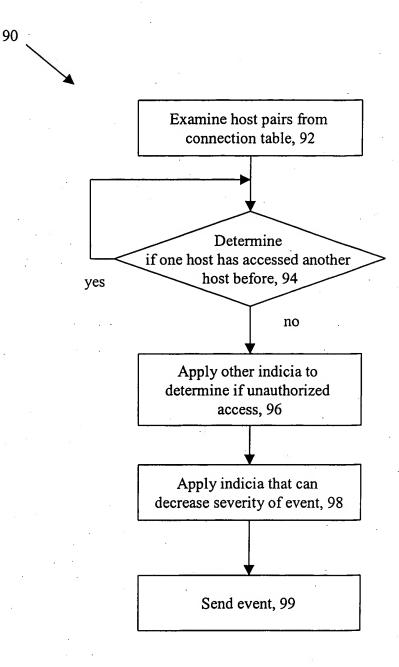
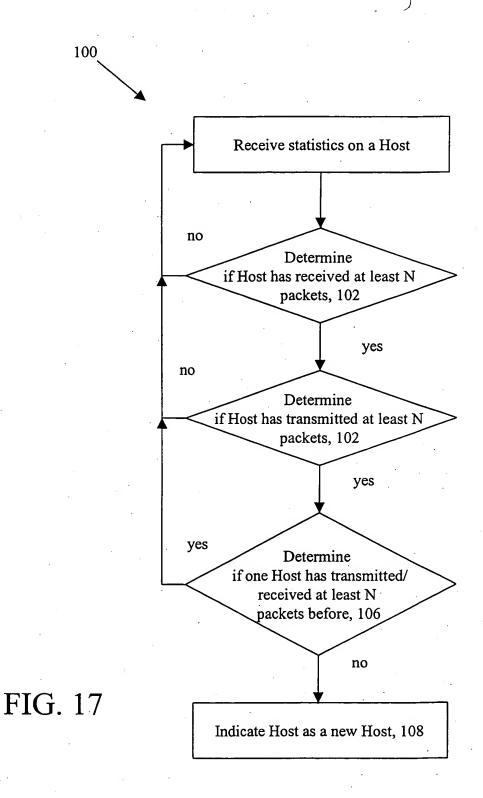


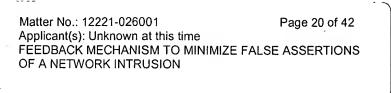
FIG. 16

Matter No.: 12221-026001 Page 19 of 42 Applicant(s): Unknown at this time

OF A NETWORK INTRUSION

FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS





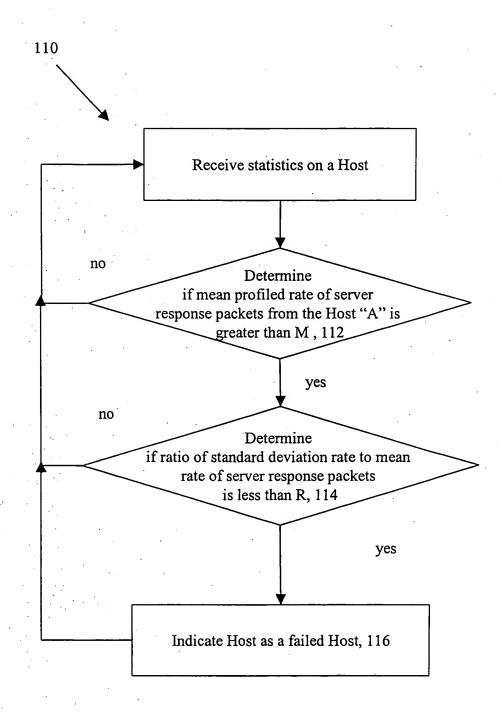
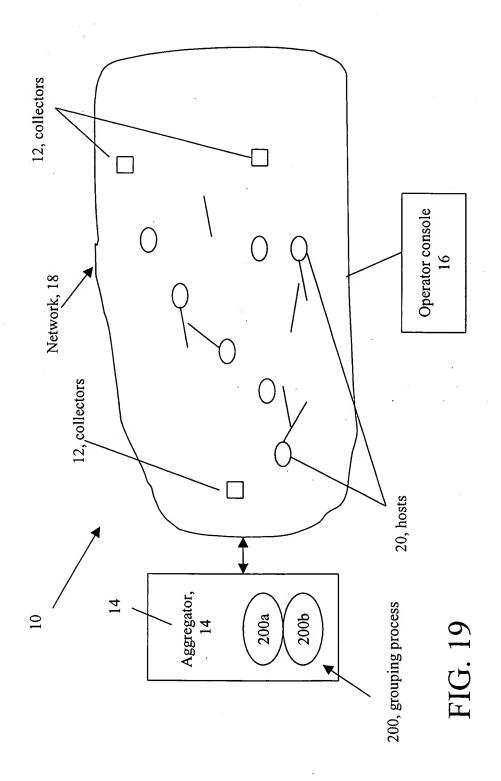
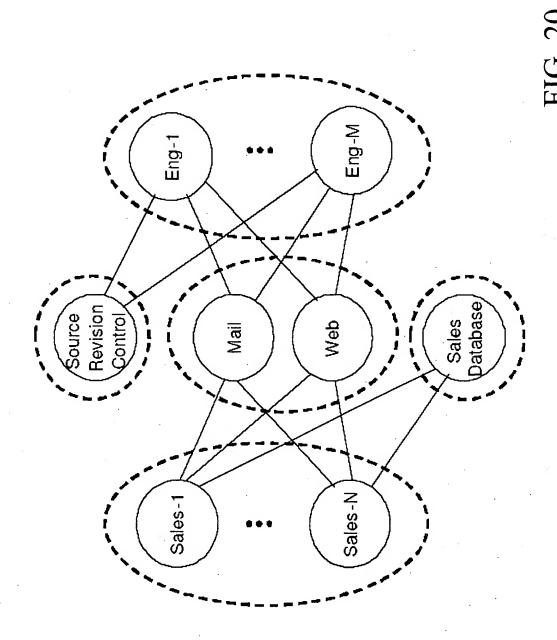


FIG. 18

Matter No.: 12221-026001 Page 21 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Matter No.: 12221-026001 Page 22 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Matter No.: 12221-026001

Page 23 of 42

Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS

OF A NETWORK INTRUSION

200

FIG. 21

Form groups of nodes according to connection patterns, 200a

Merge groups into larger groups according to connection habits, 200b

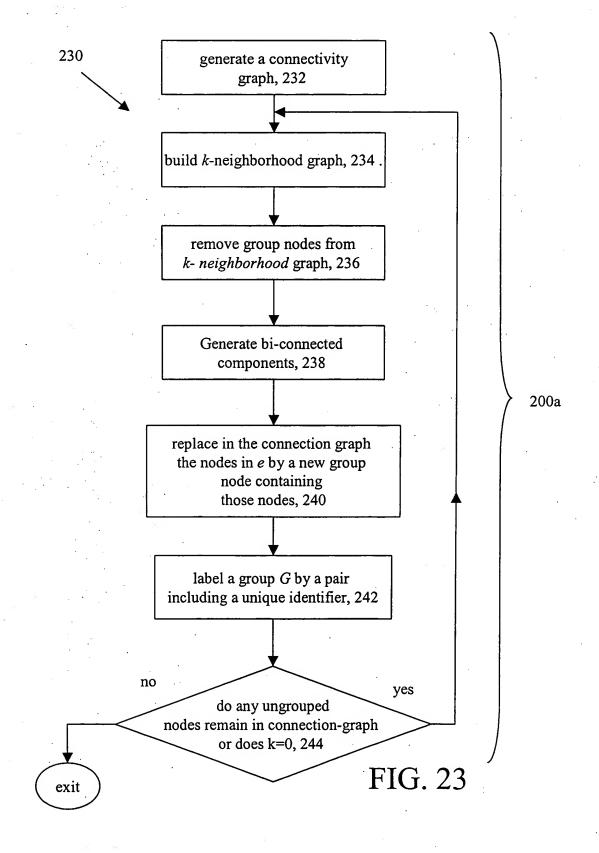
Page 24 of 42 Matter No.: 12221-026001 Applicant(s): Unknown at this time

FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS

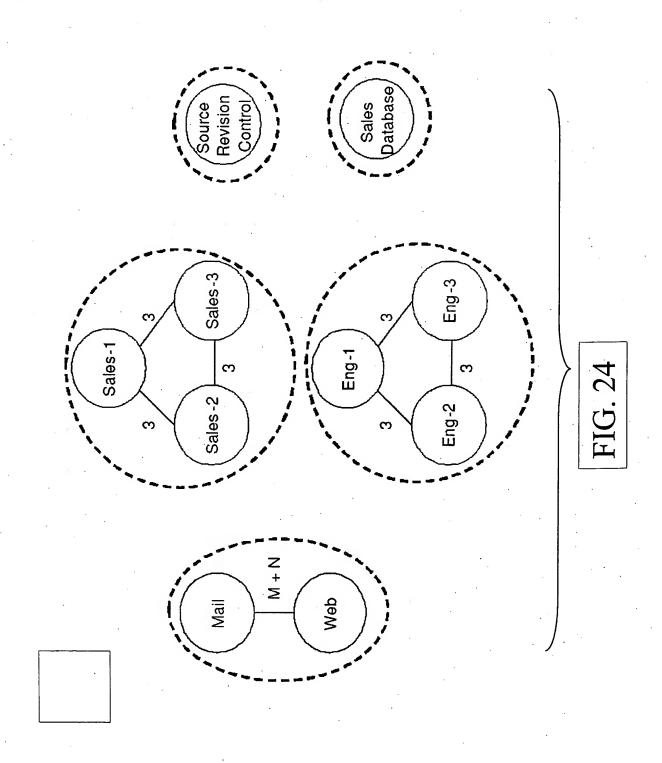
OF A NETWORK INTRUSION

construct a k-neighborhood graph, 212 200a identify bi-connected Components (BCC) in the k-neighborhood graph, 214 assign nodes contained in one BCC to a new group, 216 vertices representing those hosts are removed, 220 replace vertices with one vertex representing the entire group, 222 FIG. 22 Repeat until the groups are large enough, 224

Matter No.: 12221-026001 Page 25 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Matter No.: 12221-026001 Page 26 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

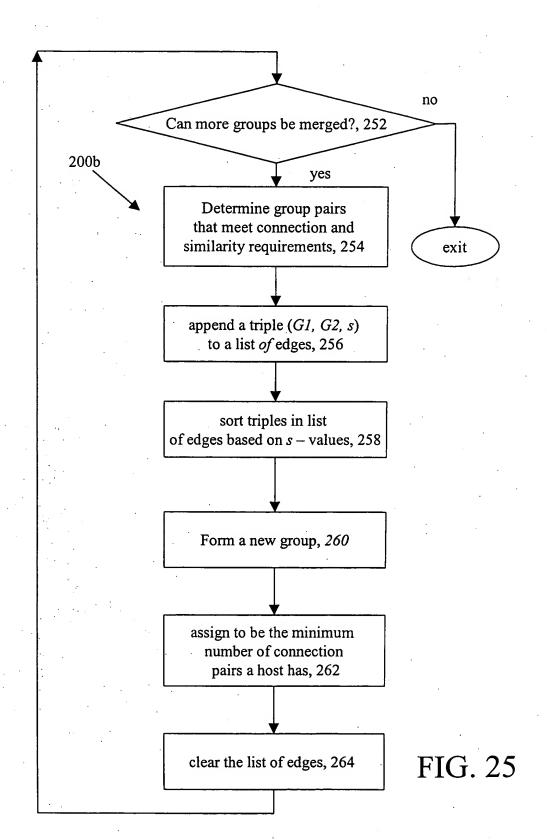


Matter No.: 12221-026001

Page 27 of 42

Applicant(s): Unknown at this time

FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS



Page 28 of 42 Matter No.: 12221-026001

Applicant(s): Unknown at this time

FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS

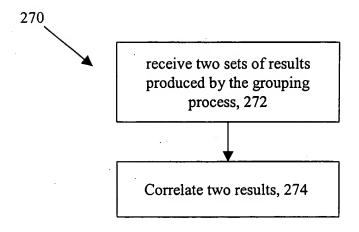


FIG. 26

Matter No.: 12221-026001 Page 29 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

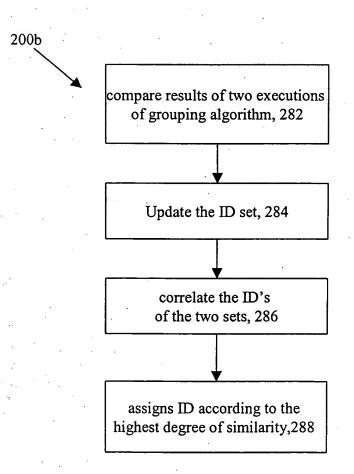


FIG. 27

Matter No.: 12221-026001 Page 30 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

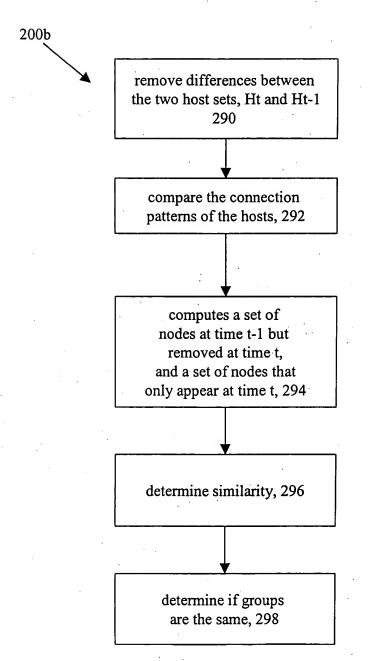
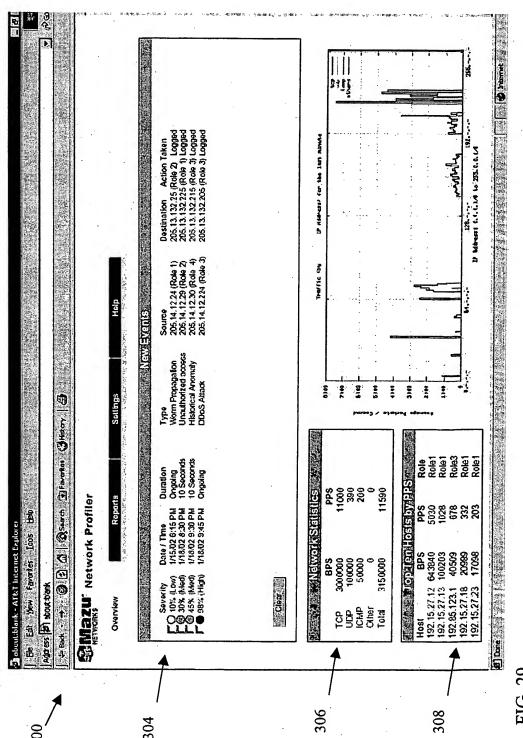


FIG. 28

Matter No.: 12221-026001 Page 31 of 42

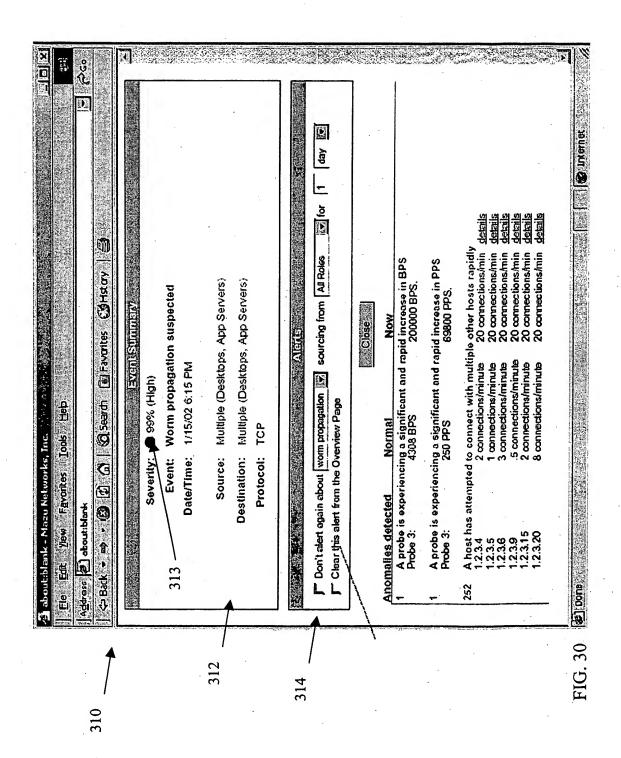
Applicant(s): Unknown at this time FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS



'IG. 29

Page 32 of 42 Matter No.: 12221-026001

Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS



Matter No.: 12221-026001

Page 33 of 42

Applicant(s): Unknown at this time FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS

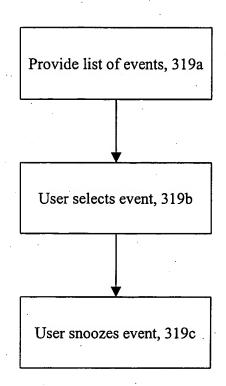
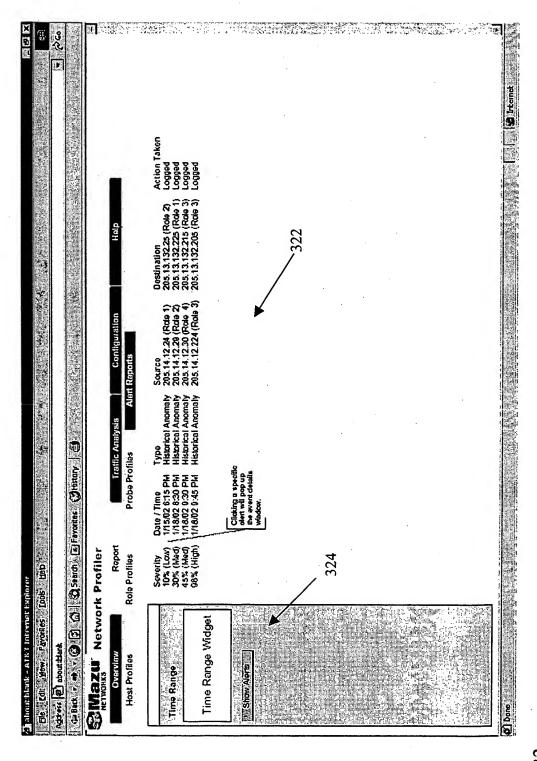


FIG. 31

Matter No.: 12221-026001 Page 34 of 42

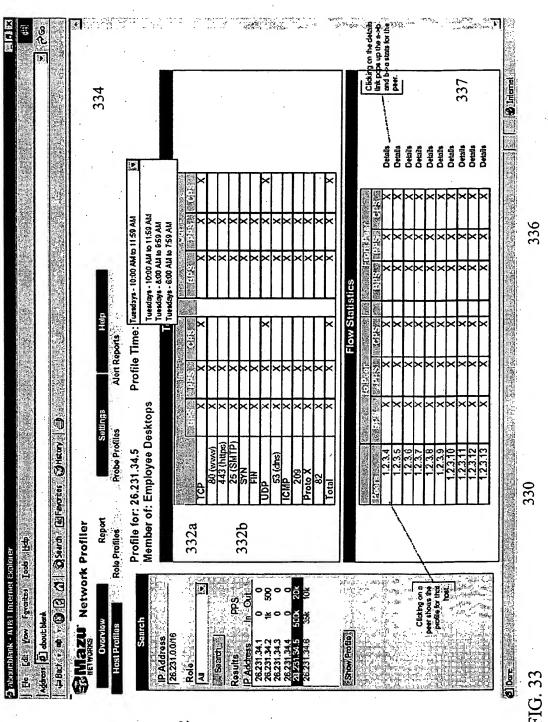
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS



Matter No.: 12221-026001

Page 35 of 42

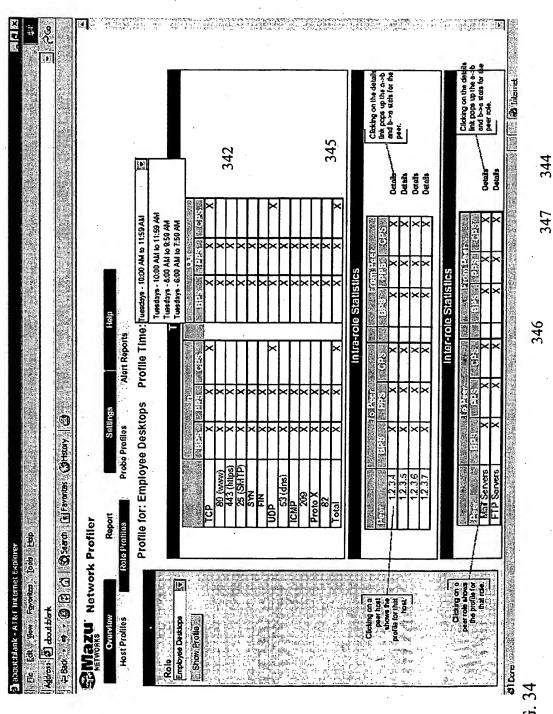
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS



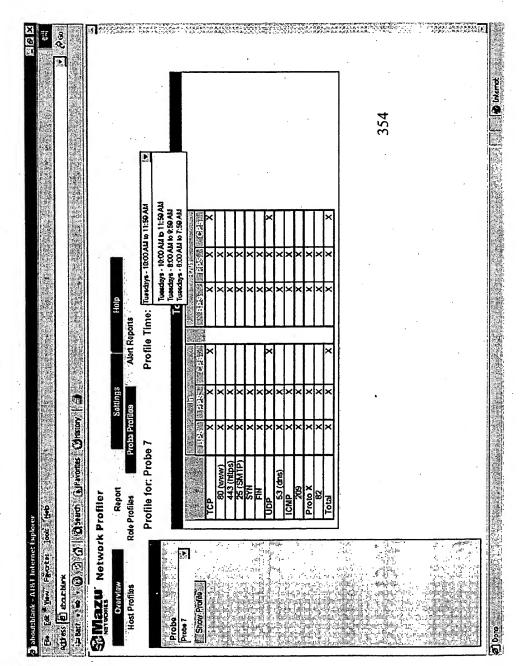
Matter No.: 12221-026001

Page 36 of 42

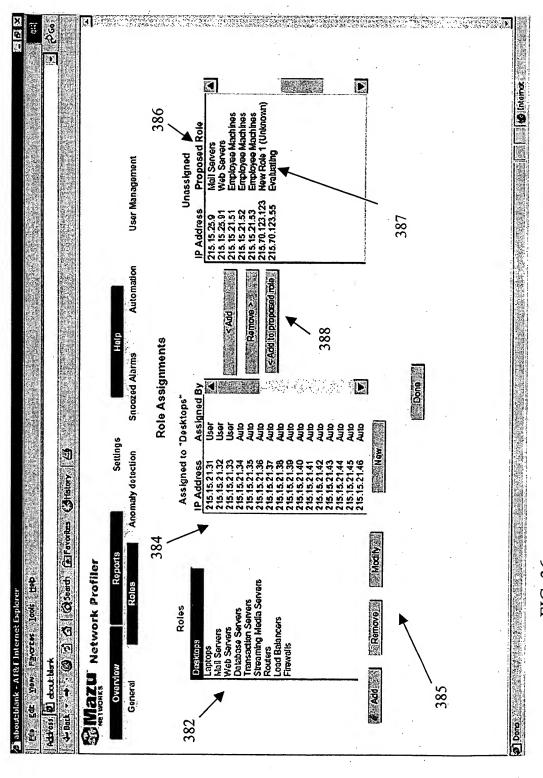
Applicant(s): Unknown at this time FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS



Matter No.: 12221-026001 Page 37 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

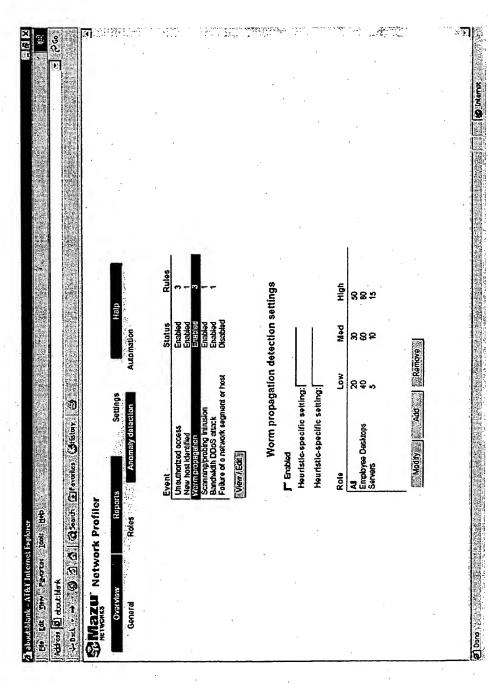


Matter No.: 12221-026001 Page 38 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS



380

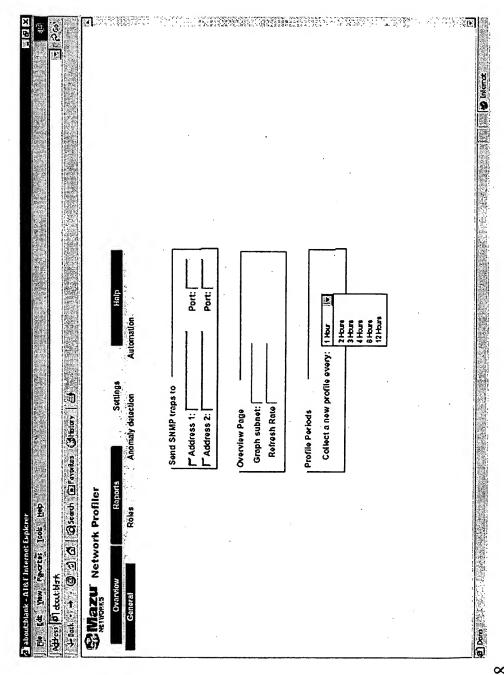
Matter No.: 12221-026001 Page 39 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



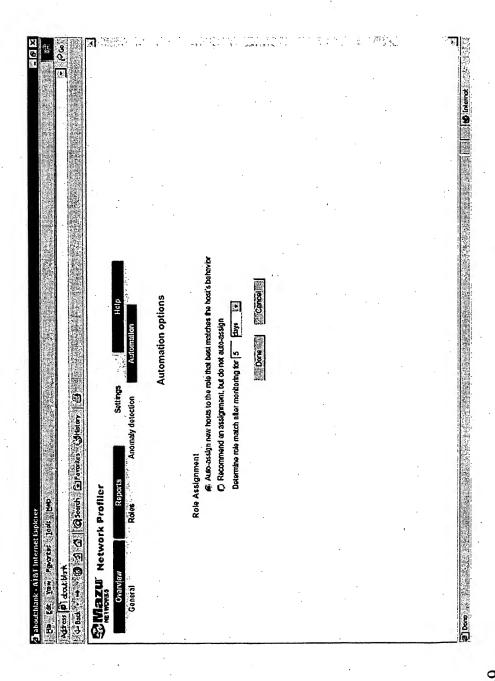
Matter No.: 12221-026001

Page 40 of 42

Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Matter No.: 12221-026001 Page 41 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION



Matter No.: 12221-026001 Page 42 of 42
Applicant(s): Unknown at this time
FEEDBACK MECHANISM TO MINIMIZE FALSE ASSERTIONS
OF A NETWORK INTRUSION

